



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office

**NOTICE OF ALLOWANCE AND ISSUE FEE DUE**

HM12/0327

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APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
08/702,525	02/07/97	016	GAMBEL, P	1644 03/28/01
First Named Applicant	SHARPE, 35 USC 154(b) term ext. = 0 Days.			

TITLE OF INVENTION NUCLEIC ACIDSENCODING B7-1 ANDB7-2 MOLECULES

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
1	BWI-120CPUS	530-387.300	E30 UTILITY	NO	\$1240.00	06/28/01

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.**

**THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.**

**HOW TO RESPOND TO THIS NOTICE:**

**I. Review the SMALL ENTITY status shown above.**

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

**II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.**

**III. All communications regarding this application must give application number and batch number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.**

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

**PATENT AND TRADEMARK OFFICE COPY**

**Notice of Allowability**

Application No.

08/702525

Applicant(s)

SHARPE ET AL.

Examiner

GAMBEL

Art Unit

1644

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/23/01
2. ☒ The allowed claim(s) is/are 83-94, 96-98, 100 RENUMBERED 1-16
3. ☐ The drawings filed on \_\_\_\_\_ are acceptable as formal drawings.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of the:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_
5. ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE FOR SUBMITTING NEW FORMAL DRAWINGS, OR A SUBSTITUTE OATH OR DECLARATION. This three-month period for complying with the REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL is extendable under 37 CFR 1.136(a).**

6. ☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
7. ☒ Applicant MUST submit NEW FORMAL DRAWINGS  
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review( PTO-948) attached  
1) ☐ hereto or 2) ☐ to Paper No. 25  
(b) ☐ including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the examiner.  
(c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

8. ☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any reply to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE / SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

**Attachment(s)**

- 1 ☐ Notice of References Cited (PTO-892)  
3 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
5 ☐ Information Disclosure Statements (PTO-1449), Paper No. \_\_\_\_\_.  
7 ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 2 ☐ Notice of Informal Patent Application (PTO-152)  
4 ☒ Interview Summary (PTO-413), Paper No. \_\_\_\_\_.  
6 ☒ Examiner's Amendment/Comment  
8 ☒ Examiner's Statement of Reasons for Allowance  
9 ☐ Other

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Serial No. 08/702525  
Art Unit 1644

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### DETAILED ACTION

1. Claims 18--29, 32, 48-59, 62, 66-68, 72-74 and 83-100 are pending.

Claims 18-29, 32, 48-59, 62, 66-68, 72-74 have been withdrawn from further consideration by the examiner, 37 C.F.R. § 1.142(b) as being drawn to a nonelected invention

Claims 1-17, 30-31, 33-47, 60-61, 63-65, 69-71, 75-82 have been canceled previously.

### EXAMINER'S AMENDMENT

2. An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R. § 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the Issue Fee.

3. Authorization for this Examiner's Amendment was given in a telephone interview with DeAnn Smith as authorized by Amy Mandragouras on March 22, 2001.

4. Cancel claims 18-29, 32, 48-59, 62, 66-68, 72-74, 95 and 99.

5. Amend the first page of the specification by inserting the following before "Background of the Invention":

G1 ~ This application is the U.S. national phase of PCT/US95/02576, filed March 2, 1995, which is continuation-in-part of USSN 08/205,697, filed March 2, 1994, ~~now~~ 6,218,516

6. Replace the title with the following:

-- NUCLEIC ACIDS ENCODING B7-1 AND B7-2 MOLECULES --

7. Replace the Abstract with the following:

G2 ~~xx~~ Nucleic acids encoding B7-1 and B7-2 molecules which bind CD28 or CTLA4 are described. These structural forms correspond to naturally-occurring alternatively spliced forms comprising cytoplasmic and signal peptide domains of T cell costimulatory molecules or variants thereof which can be produced by standard recombinant DNA techniques. These T cell costimulatory molecules can be used to identify agents which stimulate the express of alternative forms of costimulatory molecules and to identify components of the signal transduction pathway which results in costimulation of T cells. ~~xx~~

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### REASONS FOR ALLOWANCE

8. The following is an Examiner's Statement of Reasons for Allowance:

The pending nucleic acids encoding B7-1 and B7-2 molecules are structurally distinct on the primary amino acid basis and therefore free from the prior art. Accordingly the claims of this application are deemed allowable.

9. Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably **accompany** the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip Gambel whose telephone number is (703) 308-3997. The examiner can normally be reached Monday through Thursday from 7:30 am to 6:00 pm. A message may be left on the examiner's voice mail service. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached on (703) 308-3973. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 1600 receptionist whose telephone number is (703) 308-0196.

Papers related to this application may be submitted to Technology Center 1600 by facsimile transmission. Papers should be faxed to Technology Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CM1 Fax Center telephone number is (703) 305-3014.

*Phillip Gambel*

Phillip Gambel, Ph.D.  
Primary Examiner  
Technology Center 1600  
March 23, 2001

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